

PLEASE NOTE -

* Copies not attached as previously submitted to or cited by the USPTO in parent application US 10/302,606

** Copies not attached as previously submitted to or cited by the USPTO in grandparent application US 09/855,094

PTO/38/05A (10-01)

Approved for use through 10/31/2002. OMB 0551-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	Kia Silverbrook
		Art Unit	
		Examiner Name	
Sheet	1	of	7
		Attorney Docket Number	ZG006US

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No. ¹	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
120		US-4,458,255 **	07.03.1984	Giles	
		US-5,812,159 **	09.22.1998	Anagnostopoulos et al	
		US-4,855,567 **	08.08.1989	Mueller	
		US-4,812,792 **	03.14.1989	Leibowitz	
		US-4,007,464 **	02.08.1977	Bassous et al	
		US-5,612,723 **	03.18.1997	Shimura et al	
		US-6,485,423 *	11.26.2002	Silverbrook	
		US-6,174,050 *	01.16.2001	Kashino et al	
		US-5,719,604	02.17.1998	Inui et al	
		US-5,666,141	09.09.1997	Matoba et al	
		US-4,672,398	06.09.1987	Kuwabara et al	
		US-4,737,802	04.12.1988	Mielke	
		US-5,029,805	07.09.1991	Albarda et al	
		US-5,258,774	11.02.1993	Rogers	
		US-4,553,393	11.19.1985	Ruoff	
		US-4,864,824	09.12.1989	Gabriel et al	
		US-4,423,401	12.27.1983	Mueller	
		US-			
		US-			

FOREIGN PATENT DOCUMENTS					
Examiner Initials	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
BT		EP 0 713 774 A2	05.29.1996	Sharp Kabushiki Kaisha	
		DE 406 16 007	11.10.1995	Sharp KK	
		DE 406 23 620 A1	12.19.1996	Sharp KK	
		JP 2 108544 (Abstract)	04.20.1990	Seiko Epson Corp	
		JP 2 92643 (Abstract)	04.03.1990	Seiko Epson Corp	
		JP 4 353458 (Abstract)	12.08.1992	Brother Ind Ltd	
		JP 6 91865 (Abstract)	04.05.1994	Seikosha Co Ltd	
		JP 6 91866 (Abstract)	04.05.1994	Seikosha Co Ltd	
		JP 2 285752 (Abstract)	10.30.1990	Matsushita Electric Ind Co Ltd	
		EP 0 634 273	01.18.1995	Sharp Kabushiki Kaisha	

Examiner Signature	Binh Tran	Date Considered	5/24/05
--------------------	-----------	-----------------	---------

¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ³ See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ⁴ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁷ Applicant is to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

* Copies not attached as previously submitted to or cited by the USPTO in parent application US 10/302,606
 ** Copies not attached as previously submitted to or cited by the USPTO in grandparent application US 09/855,094
 PTQ/SB/08A (10-01)

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
Sheet 2 of 7				Application Number 	
				Filing Date 	
				First Named Inventor Kia Silverbrook	
				Art Unit 	
				Examiner Name 	
				Attorney Docket Number ZG006US	

[illegible]

FOREIGN PATENT DOCUMENTS							
Examiner Initials	Cite No. 1	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Type
		Country Code 3	Number* (and Code # if known)				
BT		DE	185 32 813	03.26.1996	Sharp K.K		
BT		JP	58 112747 (Abstract)	07.05.1983	Fujitsu KK		
		DE	43 28 433	03.02.1995	Heideberger Druckmaschinen AG		
BT		JP	61 025849 (Abstract)	02.04.1986	Canon Inc		
BT		JP	01 128839 (Abstract)	05.22.1989	Ricoh Co Ltd		
B		JP	04 126255 (Abstract)	04.27.1992	Seiko Epson Corp		
BT		GB	2 262 152	06.09.1993	Willert Int Ltd		
		DE	195 16 997	11.16.1986	Sharp K.K		
BT		JP	05 318724 (Abstract)	12.03.1993	Seikosha Co Ltd		
BT		JP	02 162049 (Abstract)	06.21.1990	Seiko Epson Corp		

Examiner Signature	Bm h Tran	Date Considered	5/24/05
-----------------------	-----------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See *Kinds Codes* of USPTO Patent Documents at www.uspto.gov or *MPEP* 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

PLEASE NOTE -

* Copies not attached as previously submitted to or cited by the USPTO in parent application US 10/302,606

** Copies not attached as previously submitted to or cited by the USPTO in grandparent application US 09/855,094

Approved for use through 10/31/2002. OMB 0651-0031
PTO/SB/08A (10-01)
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO			Complete If Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Application Number		
			Filing Date		
			First Named Inventor	Kia Silverbrook	
			Att. Unit		
			Examiner Name		
Sheet	3	of	7	Attorney Docket Number	ZG006US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. 1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS							
Examiner Initials	Cite No. 1	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁵
		Country Code 2	Number 3 - Kind Code 4 (if known)				
B1		DE	32 46 289	06.07.1984	Siemens AG		
B1		JP	04 368851 (Abstract)	12.21.1992	Saikō Epson Corp		
B1		JP	02 158348 (Abstract)	06.18.1990	Minolta Camera Co Ltd		
B1		JP	03 112662 (Abstract)	05.14.1991	Seiko Epson Corp		
B1		JP	03 653348 (Abstract)	03.20.1991	Matsushita Electric Ind Co		
B1		EP	0 431 338	06.12.1991	Matsushita Electric Ind Co		
B1		JP	01 257058	10.13.1989	Seiko Epson Corp		
		DE	495 17 989	11.30.1995	Sharp K.K		
		DE	498 38 747	04.17.1997	Sharp K.K		
B1		EP	0 737 580	10.16.1996	Canon K.K		

Examiner Signature	Binh Tran	Date Considered	5/24/05
--------------------	-----------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

* Copies not attached as previously submitted to or cited by the USPTO in parent application US 10/302,606

** Copies not attached as previously submitted to or cited by the USPTO in grandparent application US 09/855,094

PTO/SB/08A (10-01)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

[illegible]

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No. 1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	16
15		Country Code 3 - Number* - Kind Code* (if known)				
		EP 0 882 590	12.09.1998	Canon K.K.		
		EP 0 478 958	04.08.1992	Kemförschungs- und Karlsruher GMBH		
		DE 1 640 322	03.24.1971	VDO-Tachometerwerke GMBH		
12		GB 1 428 239	03.17.1976	Cable Projecteurs		
		DE 39 34 280	04.26.1990	CAE di Gipeletti Alberto		
		DE 29 05 063	08.14.1988	Olympia Werke AG		
15		WO 94 18010	08.18.1994	Domino Printing Sciences PLC		
31		EP 0 398 031	11.22.1990	Seiko Epson Corp		
32		EP 0 427 291	05.15.1991	Seiko Epson Corp		
33		JP 01 115639 (Abstract)	05.08.1989	Ricoh Co Ltd		

Examiner Signature	Binh Tran	Date Considered	5/24/05
-----------------------	-----------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.06. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Bureau Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

* Copies not attached as previously submitted to or cited by the USPTO in parent application US 10/302,606
 ** Copies not attached as previously submitted to or cited by the USPTO in grandparent application US 09/855,094
 PTO/SB/28A (10-01)

Subordinate for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete If Known	
				Application Number	
				Filing Date	
				First Named Inventor	Kia Silverbrook
				Art Unit	
				Examiner Name	
Sheet	5	of	7	Attorney Docket Number	ZG006US

[illegible]

FOREIGN PATENT DOCUMENTS						
Examiner's Initials	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code *	Number *			
A J B J S		JP	58 116165 (Abstract)	07.11.1983	Canon K.K.	
		EP	0 627 314	12.07.1994	Olivetti Canon Ind SPA	
		JP	61-268453 (Abstract)	11.27.1986	Olympus Optical Co Ltd	
		JP	04-118241 (Abstract)	04.20.1992	Seiko Epson Corp	
		EP	0 506 232	09.30.1992	Videojet Systems Int, Inc	
		JP	07 314665 (Abstract)	12.05.1995	Canon Inc	
		JP	03 180350	08.06.1991	Seiko Epson Corp	
		WO	97 12689	04.10.1997	The Board of Trustees of the Leland	
					Stanford University	
		JP	02 050841 (Abstract)	02.20.1990	Seiko Epson Corp	

Examiner Signature	Binh Tran	Date Considered	5/24/05
-----------------------	-----------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1. Applicant's unique citation designation number (optional). 2. See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4. For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 15 if possible. 6. Applicant is to place a check mark here if English language Translation is attached.

Burdens Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231**

PLEASE NOTE -

* Copies not attached as previously submitted to or cited by the USPTO in parent application US 10/302,606

** Copies not attached as previously submitted to or cited by the USPTO in grandparent application US 09/855,094

Approved for use through 10/31/2002. OMB 0551-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	Kia Silverbrook
		Art Unit	
		Examiner Name	
Sheet 6 of 7	Attorney Docket Number	ZG006US	

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No. ¹	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS					
Examiner Initials	Cite No. ¹	Foreign Patent Document Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	51	EP 0 510 848	10-28-1992	Ivi Yehuda	
	51	JP 05 28765 (Abstract)	10-29-1993	Canon Inc	
	51	JP 04 141429 (Abstract)	05-14-1992	Seiko Epson Corp	
	51	JP 01 105746 (Abstract)	04-24-1989	Ricoh Co. Ltd	
	51	GB 792 145	03-19-1958	Technograph Printed Circuits Ltd	
	51	EP 0 750 993	01-02-1997	Canon K.K	
	51	JP 01 306254 (Abstract)	12-11-1989	Seiko Epson Corp	
		EP 0 092 229	10-28-1983	Siemens AG	
		DE 37 16 996	12-08-1988	VDO Schindling	
		DE 34 30 155	02-27-1986	Siemens AG	
		FR 2 231 026	12-20-1974	Electricite De France	

Examiner Signature	Binh Tran	Date Considered	5/24/05
--------------------	-----------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher city and/or country where published
JH		NOWOROLSKI, J. MARK et al., "Process for in-plane and out-of-plane single-crystal-silicon thermal microactuators". Sensors and Actuators, A, CH, Elsevier-Sequola S.A., Lausanne; Vol-55; no- 1;-15 July-1996; pp 65-69, XP004077979 ISSN: 0924-4247.
BSP		ATAKA, MANABU et al, "Fabrication and Operation of Polyimide Bimorph Actuators for Ciliary Motion System". Journal of Microelectromechanical Systems, US, IEEE Inc. New York, Vol. 2, no. 4, 1 December 1993, pp 146-150, XP000443412, ISSN: 1057-7157.
MT		YAMAGATA, YUTAKA et.al, "A Micro Mobile Mechanism Using Thermal Expansion and its Theoretical Analysis". Proceeding of the workshop on micro electro mechanical systems (MEMS), US, New York, IEEE, Vol. Workshop 7, 25 January-1994, pp-142-147, XP000528408, ISBN: 0-7803-1834-X.
-		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.